THE RARS =EXCITER=

RALEIGH AMATEUR RADIO SOCIETY — RARS — WORLDWIDE FRIENDSHIP

CLUB CALL: W4DW

REPEATER: W4DW/R 146.04/64

NOVEMBER, 1985

ISSUE 188

LEADING EDGE

SHERMAN STARNES
W4TZU

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By the time you read this, another Ham-in-Space Shuttle mission should be nearing launch. The Shuttle Columbia is scheduled to go on October 31 carrying Spacelab D1 which contains a VHF/UHF transceiver and a two-band antenna. The rig transmits on 2 meters between 144 and 146 mHz. with frequency modulation. It receives on 430 to 440 mHz. The radio was developed and constructed for this mission by Bosch. No less than three amateurs will be on board. German astronauts R. Furrer, DD6CF, and E. Messerschmid, DG2KM, with Dutchman Dr. W. Ockels, PE1LFO, will operate the radio from the third day of the flight until about twelve hours before landing. The call sign of the station will be DPØSL.

The main focus of amateur radio activity will be operating over Europe but some contacts will be attempted in other parts of the world. When the astronauts are busy they might leave the rig in a recording beacon mode in which it will call CQ and record responses. In another mode the transmitter sends continuously for VHF wave propagation studies. The German Amateur Radio Club, DARC, will QSL two-way contacts and will confirm calls heard on the tapes in the receive beacon mode.

In other astronaut-amateur news Dr. Ron Parise, WA4SIR, is scheduled for multiple flights over the next tw years. Ron has hinted that he has a novel proposal for his ham activities next March. The latest indications are that it will involve packet radio He designed several of the astronomical instruments on the flight and he is set to fly with them (and amateur radio) again in November 1986 and Jul 1987.

Lately there is a lot of talk i AMSAT about geosynchronous satellites Two proposals under study involve NASA's Advanced Communications Technology Satellite (ACTS). One idea is to use NASA facilities with an uplink around 30 gHz. and a downlink around 20 gHz. If that makes you dizzy, sit down and put your head between your knees for a few moments - it gets a little more reasonable after this. The other proposal using ACTS is to build amateur transponders which involve relatively lower frequencies such as mode L (1269 mHz. up, 70 cm. down) and mode S (70 cm. up, 2.41 gHz down). One feature under study is a level 3 packet node - very ambitious considering that no one can agree on a level 3 protocol yet. ACTS is to b launched in late 1988.

(continued inside)

EDITOR: ANN M. BRADLEY, WA4APK - 5207 DENISE DRIVE - RALEIGH, NC 27606 - (919) 851-2437

A third geosynchronous proposal would use a new, relatively inexpensive, piggy-back launch method developed for the new, more powerful, French Ariane IV. The electronics involved would be similar to other phase IV proposals. One note - the Ariane IV recently went in the drink with two commercial satellites. The string of satellite and launch failures over the last year has brought the launch insurance business to its knees. Premiums are now 20 percent of the insured value of the satellite if insurance can be found at all.

One last proposal being looked at would use "drifters" - satellites a little below geosynchronous height - which would complete an orbit in a month and would spend about ten days above the horizon drifting slowly from West to East.

A BEGINNERS GUIDE TO OSCAR-10

Complete, simplified, step by step instructions and advice on how to get started in OSCAR-10 Operation.

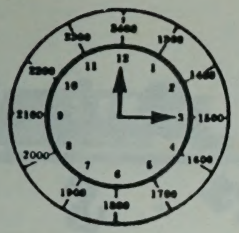
Mike Crisler N4IFD
AMSAT Area Coordinator

I. INTRODUCTION

When I learned of the launch of the OSCAR-10 amatuer satellite I became excited over the prospect of working DX with modest antennas and a complete disregard for sunspots and the unreliability of the ionosphere. I pursued all the means available to me, magazines, Hamfest, etc, to find enough information to be able to operate the through satellite. I became very frustrated, not finding enough information assembled in any one spot or several spots to give me the cookbook approach I needed to get on OSCAR-10. The purpose of this booklet is to try to provide you with my experiences during the last 2 years that has resulted in successful operation on Mode B of AMSAT - OSCAR-10. In this description I am going to make many personal references to what I have found successful and what I have found doesn't work. This is not to say that it couldn't work, or the way that I found it to work is the best way. It simply is one way to do it and based on my experience and others I have talked with on the air, I think it a relatively straight-forward way to operate on OSCAR-10 with minimum frustration.

II. AMSAT

AMSAT IS A WORD YOU ARE GOING TO HEAR A LOT IN DEALING WITH AMATEUR SATELLITES. AMSAT is an acronym for the Radio Amateur Satellite Corporation. AMSAT is a non-profit, tax-exempt 501(c)(3), scientific corporation founded in the greater Washington, D.C. area in early 1969. We are also going to talk a lot about Oscar-10. OSCAR-10 is the acronym describing the tenth Orbiting Satellite Carrying Amateur Radio.



MINUTES OF THE MEETING

The regular monthly meeting of the Raleigh Amateur Radio Society was held October 2, 1985, at the First Presbyterian Church, S. Salisbury Street. President Bruce Eggers, WA9NEW, called the meeting to order and welcomed the 42 members and 10 guests present.

Bruce reported on the actions of the Executive Board at their last meeting:

Doc, W4YZX, has purchased the rope authorized by the club for use with our gin pole.

On the subject of returning some club funds back to the membership, the Executive Board recommended that the March Awards Banquet be $5, payable in advance, and that the banquet cost difference be made up from the club treasury. A motion was presented to this effect and seconded, but the vote was tabled until next meeting to give members a chance to think about it.

Any other thoughts on returning more benefits to the club membership should be submitted to the board members.

The club treasurer Norm, KN4G, reported that a separate high earning savings account will be established for a portion of our funds. Funds to meet current expenses will be transferred from savings to checking with no fewer than two of the four authorized signators.

Hamfest Chairmen Jeff, WA1WXL, and Al, K4GOE, reported that several key chairmanships are still to be filled. Since a meeting is to be held next month for all of the chairmen, it is important to contact Jeff or Al with your preference as soon as possible.

Reed, AB4W, our SEC, and Bruce, KI4ME, our county EC reported on the recent emergency activities, including hurricane Gloria. Reed read a note of thanks from Gov. Martin to all those hams who helped out.

Jack, WB4MCU, talked about the Red Cross communications at the State Fair, and called for volunteers who would be able to help.

Bruce gave an update on an item from last month's meeting, noting that Cellular One is donating three radios for installation in Red Cross dialysis vans.

Bruce reported in his attempts at furthering Amateur Radio interests by speaking at a Young Astronauts Club.

The membership was reminded that next month is the annual Auction. Bring your auction items and support the club.

Our Nominations Committee Chairman, Bob, KM4C, gave the Nominations Committee Report. The following nominations were approved by vote of the membership:

President	Bruce Eggers, WA9NEW
Secretary	Sue Meyer, WB4USX
Publicity	Audrey Browne, WB4ZSM
FM Chairman	Billy Edwards, K4BWC
Public Service	Jack Kenny, WB4MCU
Newsletter	Ann Bradley, WA4APK
Hamfest	Jeff Parker, WA1WXL
	Al Mullis, K4GOE

No nominations for Training Director have thus far been made.

Bob, AA4L, noted that about 20 have been coming to the Novice Class which is sponsored by RARS.

Jim, WA4AOO, reported that a set of 5 code tapes are available for $5 for those interested in learning the code. See Jim if you want code tapes.

Bruce reported that RARS members were active in handling traffic during the Mexico City earthquake emergency.

Murray, W6MVZ, introduced our guest speaker Carl, N4PY, of the Raleigh Astronomy Society, who presented an excellent program on comets and meteors, with an emphasis on Halley's Comet which should be visible in December.

Continued

Operation Raleigh

by Dave Tuttle
KB4OKB

Those present at October's meeting were pleased to have Mark Bensen of Operation Raleigh give a presentation on the program and its communications. RARS requested information on frequencies and skeds in the hope of being of service to the organization in the future.

I received from Mark this month several copies of the "Gannet News," a publication billed as "The Newsletter of Radio Amateurs on Operation Raleigh." Those interested in receiving it should contact me. Licensing, QSLing, and status of communications in all worldwide bases are covered. Following are some noteworthy items for the month.

Regular 80m skeds are held on 3720 Khz at 20.00 GMT but have met with limited success at times due to QRM.

The Bolivia HQ is using 5418 Khz and 7275 Khz with 30 watts to dipoles to cover a distance of 950 km with area communications.

The sailing ship "Zebu" has been heard widely and worked reliably free of QRM on 13448 Khz. The antenna? A huge 300 ohm ribbon ZL special.

The HQ in Hawaii will be regularly using the same 13448 Khz frequency.

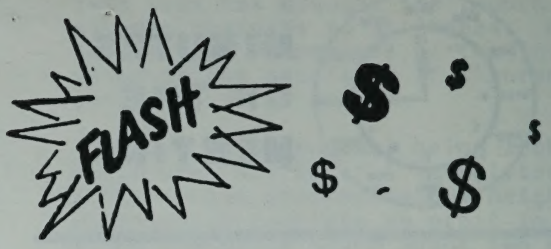
'til next month,
Dave, KB4OKB

Minutes:

Following our regular program, Mark Benson, U. S. A. Executive Director of Operation Raleigh gave a special presentation and video of Operation Raleigh.

Following the two fine presentations, coffee, doughnuts, and fellowship were enjoyed by all.

Roger Moates
Secretary, RARS



-AUCTION-

GOING--GOING---Get busy or it will be GONE! I'm talking about RARS Annaul Auction and your chance to unload some surplus or replenish your goodie box, or just trade in last year's impulse for this year's "find." You still have plenty of time to clean out the shack (and think how many brownie points that alone will bring). Bring junque, bring treasures--but above all bring money!

All items must be tagged with name, call, and any pertinent information, such as minimum bid, etc. Buyers will pay the cashiers who can keep track of "who owes what for which owned by whom." Items donated to the club will be tagged "Club" and the proceeds will be added to the club's treasury.

RARS receives the usual 10% selling fee based on the final bid price. All items sold by the club will be subject to a maximum charge of $10.00 regardless of the total selling price. This is a good chance to sell expensive items for a very reasonable selling fee.

If you are bringing items for sale, it might be wise to arrive a little earlier. Whatever you do, don't miss this meeting. Us "oldtimers" know what a fun evening the November auction is. You newcomers have a treat in store. Remember, "One man's junk is another man's treasure."

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'NEW LINE

by Bruce Eggers, WA9NEW
President, RARS

* * * * EXTRA - EXTRA * * * *
* * Now in The RARS Exciter * *
* A BEGINNERS GUIDE TO OSCAR-10 *

Mike Crisler, N4IFD, AMSAT's Chief Area Coordinator, wrote it. I was lucky enough to get a copy just a few weeks ago. It's GOOD! I, like many RARS members, am only aware of the existence of our 'new' mode of operation, repeaters in the sky, satellites. (New? Next year marks the 25th anniversary of OSCAR 1's launch on Dec. 12, 1961!)

I spoke with Mike the other day and asked permission to reprint his guide in The RARS Exciter. He was most receptive to the idea and we hope this might 'excite' you to come up on the 'bird'. At our Editor's discretion, with space limitations in mind, this very well done introduction to OSCAR - 10 will appear in serial form in the coming months. We hope you enjoy it. Remember, RARS supports AMSAT and several RARS members are active on the satellites. If you're interested, ASK!

-...

AWARDS BANQUET BENNIE

After months of discussion about increasing benefits to the membership, and after receiving very little input from the membership, the Board of Directors and the Executive Committee decided to recommend a significantly reduced cost to current members who wish to attend the Annual RARS Awards Banquet. I brought their recommendation to the floor at the last meeting (see 'Minutes'). After receiving a motion and a second, the item was opened to discussion. As seems so often the case, we were soon considering everything from Mom's apple pie to the Mid-East crisis. Fortunately, and presumably with deference to our speaker, an astute member motioned to table further discussion. My thanks for that motion. But the item will again be presented at the December meeting. Your Board considers this an appropriate and worthy idea. If you want to propose entirely different methods of increasing membership benefits, fine. We've been asking for ideas for months. However, let's get this idea 'yea'd and nay'd' before we try to solve the rest of the world's problems.

-...

NOVEMBER IS ELECTION MONTH

K4MC headed the nomination committee and presented the slate at the October meeting, save one office, that of Training Director. With the membership's approval, I took on the task of ~~sticking~~ finding a volunteer to fill this vital role for RARS. A toot on the RARS whistle to Larry, N4MCC, who will be presented as the nominee at the November meeting. I'm convinced Larry will do a fine job. And I hope we'll all give him the help he'll need.

WHY
can't you find a doctor who's finished practicing?

WHY
aren't squad cars big enough to hold a squad?

WHY
is the truck which comes after the wreck called the wrecker?

WHY
is it, when I fold my dipole, it isn't a folded dipole?

WHY
do they sell coffee in tin cans and potato chips in plastic bags?

* * * PACKET RACKET * * *

Last month I talked about what I believe that packet radio is NOT good for. Now I would like to say a few things about what I think it IS good for.

Let me start with a project that most active Amateurs in Wake county know something about -- Christmas traffic from a Shopping Mall. In the past we have set up stations in Crabtree Valley and also in Cary Village Malls, and used our equipment to demonstrate to the public that Amateur Radio is more than just some herring-bone patterns on their TV sets. Last year, as I understand it, RARS had a computer set up to generate traffic which was saved on a diskette and perhaps printed, but I'm not sure whether or not this traffic was sent directly from the diskette on the air. CARC had a computer set up to send NC traffic to other local stations (via RTTY) where it was gathered and later put into an NTS net. Both systems worked well and the appearance of the computers caused much interest to passers by. This year, CARC is planning to use a packet station in Cary Village Mall. The plan is to upload traffic (which was key-entered only once) to the K4IWW PBBS (Packet Bulletin Board System) where all messages will be stored until retrieved for delivery or forwarding. This technique has been proven on a small scale. I have placed three or four messages for western North Carolina on the PBBS and here is what happens:

First, the "TO" field of the PBBS message is used to include the City (if in NC), State 2-letter postal code (if in the 4th region), or just simply "4RN" if going out of section. This is done because we have at least three 4RN sections directly accessing Wake county via Packet radio now.

The "SUBJECT" field of the PBBS message will have "NTS." Lastly, the entire ARRL-format message is put in as the text portion of the PBBS message.

When the message is stored, subsequent BEACONS from K4IWW will list the destinations of messages being held. This means that any packet station which is monitoring will be able to see the "traffic list" and the operator can decide whether or not to receive (and remove) any traffic from the PBBS. As I write this, a quick glance at the display of my packet terminal shows that messages are being held for WA4SZK, ALL, K4IWW, and AIØK. If there had been message traffic for 4RN or for Hendersonville, it would have been listed there too. Once a station operator decides he can handle some traffic, he signs on to the PBBS receives the message and then kills it (removes it from the PBBS). The message being removed is the signal back to the sender, that the traffic is being handled. This also keeps the message from being handled twice or more, through the NTS.

I believe that both RARS and CARC broke some "new ground" last year and both systems should be used for 1985 Christmas traffic booths. One computer can produce "soft" copies of traffic to be sent and either another, or the same computer, can serve as a packet terminal for transmission of messages. We are blessed with 2 PBBS's in the area, K4IWW and WA5SZL-1, both running the WDCG PBBS program, and our coverage is getting better almost daily. Let's give them a good workout this year with Christmas traffic and either prove or disprove this notion that packet is good for traffic handling.

Why is Christmas traffic so important for this?

In my opinion, the secondary reason for handling Christmas traffic for the public is to provide this service for (and make Amateur Radio look good to) the public. I believe that the real, best reason is an annual test of our ability to handle bulk quantities of traffic and to provide experience in doing so. I also believe that packet radio is destined to provide invaluable services in times of emergency when other communications are not possible. Many of us remember the tornado disaster in North Carolina and the huge amounts of message traffic required to be sent. Great care is always taken (or SHOULD always be taken) to ensure accuracy when passing message traffic and this is one of the really strong points of packet radio. I say let's use it!

Ed Stephenson, AB4S

I received the following response to last month's column, which I am happy to print here:

Continued

I believe that packet is a better QSO mode than RTTY and maybe CW for two reasons:

1. It is a better use of the frequency spectrum and allows more QSOs/CPS than the other two modes.
2. Under normal conditions, nothing is lost! The contention factor is removed, and even though some of the thoughts may come in delayed or out of order, none are lost. As we learn to use this new mode better, the QSO problems you stated in the last PACKET RACKET will disappear.

Some of the disadvantages I see are:

1. The typing skill necessary for the mode. I think this has discouraged more hams about this and RTTY modes, than anything else.
2. The cost and knowledge necessary to get on packet. I thought it was easy, but there was some things I took for granted when I started.

Will Harper, K4IWW

Thanks for your comments, Will. Ed

we have used ham gear for sale! hf·vhf SEE DAVE - KB4OKB

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FALL 1985 NOVICE CLASS

I was quite pleased to be asked to be principal instructor for the Fall Novice classes being taught at NCSU under the auspices of RARS. Being a die hard Wake Forest fan, I still feel somewhat uncomfortable working over there at the McKimmon Center (HI!).

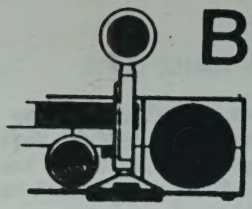
Seriously, we began the sessions with 19 registered students and, by the third class meeting, we were up to 27. To date, I have seen about a 50% dropout but, then again, I am sure that their interest wained because they realized that they had to work a bit. After all, the final exam is to say that you have passed the Novice class examination.

I closely monitor my attendance per class and follow up with those who have been absent, mainly to keep or renew their interest in the course. Those who have persevered through the first few sessions have worked hard and, in my opinion, will pass the "final exam" successfully.

My main concern is what happens after they get their ticket? I have invited them to RARS meetings and have exalted the position of ARRL and what a great group that is. I don't think that is enough. As my class progresses into the second half of the period, where we really get into some radio basics, this is where we need you...the membership. I'd like to see a member "sponsor" an advanced student to cover, one-on-one, in more detail, some of the issues presented in weekly classes. Hey... half these people have never seen the inside of a ham shack. Put your packet, 2M FM, HF, EME or whatever to work.

I applaud the number of RARs members who have taken the time to come out and sit through and PARTICIPATE in my classes. You all are welcome. But, I throw out the challenge...WILL YOU BE AN ELMER?? CAN YOU HELP OUT?? Please call me at 779-5905 or at work at 362-0842. Your help is needed to bring the best out of potential new amateur radio operators.

Harry A. Arsenault, K1PLR



BERT'S BEAT

WITH
BERT BAILEY, W4PYM

ANOTHER RACE BUT**********
RARS had its first misfortune at Raleigh's Triathalon 28September. Ole Reliable Bill WB4EOV was the honcho and he had the capable help of Norm KN4G, Wilbur WD4RDU and a new op from Wake Tech, RJ Rarkin whose call I cannot get down real good but it's something like KN4KNB(Sorry about that,RJ). All looked rosy. The Race Director, Butch Robertson, who runs 2d Sole,had all his plans laid out, including instructions for Bill and his crew. All ops were in position to record the swimmers as they splashed about, the bicyclists as they sped on their merry ways and the runners as they panted on to victory. BUT lo and behold, the Heavens did not smile on RARS today.Mighty Casey has struck out. Bill's transmitter went out and the CP was out of action. So the last reason for reporting on this misadventure is to fault Bill, who has cut the mustard on many, many such occasions but rather, to caution all to be prepared to take over "NCS" when commo fails.Butch was most appreciative of the efforts and our ops at least got to see these odd, strange fellows who do THREE things to grab the medals.Running is not enough.Got to drown, rupture yourself on a bike and wind up with your heels closer to your knees than ever before. So who's crazy or crazier, these athletes or us radio ops who do our best to establish commo on a Saturday morn when all else are shopping,swimming, biking, funning, sacking out and otherwise enjoying life.???????????

TEN COMMANDMENTS FOR TECHNICIANS
(stolen from the Community Relations Director,Hq, 2750th ABW,WPAFB,OH)

1.Beware the lightening that lurketh in the undischarged capacitor lest it cause thee to bounce thy buttocks in a most untechnician like manner.

2.Cause thou the switch that supplieth large quantities of juice to be opened and thusly tagged, that thy days in this earthly veil of tears may be long.

3.Prove to thyself that all circuits that radiath and upon which thou worketh are grounded and thusly tagged lest they lift thee to radio frequency potential and causeth thee also to make like a radiator.

4.Tarry not amongst those fools who engageth in intentional shocks for they are surely nonbelievers and are not long for this world.

5. Take care that thou useth the proper method when thou takest the measure of a high-voltage circuit lest thou incinerate both thyself and thy meter, for verily,tho thou has no account number and can easily be surveyed, the test meter doth have one and, as a consequence, bringeth much woe unto the supply department.

6. Take care that thou tampereth not with safety devices and interlocks, for this incurreth the wrath of thy supervisor and bringeth the fury of thy safety inspector upon thy head and shoulders.

7. Work thou not on energized equipment ,for if thou dost,thy fellow workers will surely buy beers for thy widow and console her in other ways.

8. Service thou not equipment for electrical cooking.It is a slothful practise and thou might sizzle in thine own fat for hours upon a hot circuit before thy Maker sees fit to end thy misery.

9. Trifle thou not with radioactive tubes and substances lest thou commence to glow in the dark like a lightenin bug and thy wife have no further use for thee except thy wages.

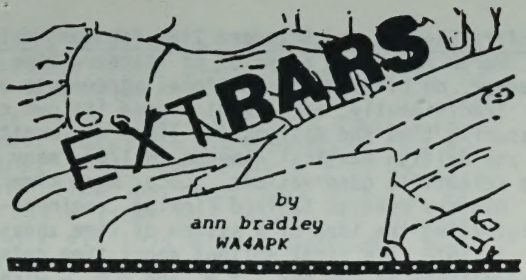
10. Thou shalt not make unauthorized modifications to equipment, but causeth thou to be recorded all field changes and authorized modification made by thee,lest thy successor tear his hair and go slow

ly mad in his attempt to decide what manner of creature hath made a nest in the wiring of such equipment.

//////////////////////////////

SPECIAL DX CHASERS NOTE!!!!!!!!! Flash message has been received from KJL5ERA in Two Land that QW3STR/X will be operating mobile in the far Pacific on 142.345 GHz next Wednesday(Z time). He will only operate CW to hold down the number of QSOs.Will be using a DFG/67/JHG Transverter with a 2 cm dipole slung from a helium balloon 400 fet up(so long as the He holds out.) QSL via da Buro.

TRAFFIC HANDLING HOT TIP****** The regular 1842Z Net will no longer meet on Wed,Thu and Sun on 1.79 KHz.Instead catch us on 1.78 KHz on Sun, Thu and Wed. We have switched from a log-periodic to a 400 radial ground plane.Hopefully this will keep the lids off freq. Tfc Count for last month: 5CW,45LSB,2USB, 1FM(we think),3AM(got us a pink ticket),6SS(100W spread out over 5 MHz) and 78 unknown modes. See you next Tuesday on freq. 73s es gud DX**********



Mike Luschene, WD4LXR, will be moving to Tuscon, Ariz. to take a new job. Mike has served Amateur Radio and RARS well. He'll be back for visits. We all wish him well. 73, Mike, stop by when you can!

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Kudoes to Sally, KB4MEA and Pete, WA2EIN, Cranwell for offering to host the RARS Xmas party. Watch December issue for time and date.

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Congrats to Marty, NY4H, and OM, Mike on the arrival of their first granddaughter--and to proud parents, Pam and Stan. But, Marty, I really think she's a little young for CW.

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Thanks again to Ed, AB4S; Herb, N4UE, and the Cary "Feedline" for sharing "Packet Racket" with the Exciter and RARS members.

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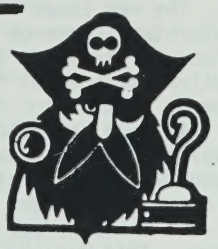
I for one am looking forward to the auction and I sincerely hope the outgo exceeds the income. No, I'm not daft. I'm referring to some of that "stuff" in the shack!

Announcement

NEW HAM RADIO DEALER...



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****

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#2:FUSES-For those that have trouble blowing fuses, we have 30-amp. fuses marked 3-amps. Limited supply, order early!

#3:ANTENNA GREASE-Our Secret Formula consisting of silicone, 38 wt. diesel oil, & powdered QSL card from KB4QR: ONE application is all you will need. Standing Waves are lucky if they can hang on upside down. QRM/QRN slides off right before your eyes. 5-gal. buckets only.

NO PLASTIC CREDIT OR C.O.D..Hot Cornbread w/Onions, Pecan Pie accepted.

(Tnx for Idea From: The Capacitor,Winslow, Indiana, via A.R.N.S.)

Sanford Fleming and Standard Time for the World:

North America's adoption of standard time recognized Greenwich, England as prime meridan. However, no binding international agreements on the use of Greenwich existed in 1883

Traditionally, each country used its own capital city or principal observatory for measuring time and designating lines of longitude on national land maps. After the publication of the British Nautical Almanac in 1767, many nations came to use Greenwich time for navigation and scientific observations. Local mean time served for all other activities

History credits Sanford Fleming, engineer-in-chief of the Canadian Pacific Railway, with originating the idea of a system of time zones for the whole world.

In 1876, his first notions about time reform concentrated on replacing the two 12-hour designations of the day - a.m. and p.m. - with a 24-hour scheme. Almost immediately, however, he expanded his interests to propose a system he called variously "Terrestial Time," "Cosmic Time," and"Cosmopolitan Time" - a division of the globe into 24-hour zones identified by letters of the alphabet. Fleming also campaigned for a prime meridan common to all nations, but proposed one in the uninhabited Pacific rather than at Greenwich, England.

Organized international support for fixing a common prime meridan started at the International Geographical Congress held in Antwerp, Bilgium, in 1870. Scientists met periodically throughout the following decade to discuss the practicalities and difficulties of establishing a standard of time for the whole world.

At the International Meridian Conference, held in Washington, D.C. in October of 1884, diplomats and technical specialists met to act on the scientists' proposals.

The conference recommended that the nations of the world establish a prime meridan at Greenwich, count longitude east and west from the prime meridian up to 180 degrees in each direction, and adopt a universal day beginning at Greenwich midnight.

Although the International Meridian Conference had no authority to enforce its suggestions, the meeting resulted in the gradual world-wide adoption of a time zone system based on Greenwich as prime meridian. Today only the inland portions of Saudi Arabia do not recognize this system.

Standard Time and Daylight Saving Time:

The first federal legislation establishing a standard time for the nation grew out of efforts to save fuel and promote efficiency during World War I. On March 19, 1918, Congress approved "an act to save daylight and provided standard time for the United States. The law divided the United States into five zones - Eastern, Central, Mountain, Pacific and Alaska - and prescribed that the time in each zone be based on the mean astronomical time of the 75th, 90th, 105th, 120th and 150th meridians west of Greenwich, England. Furthermore, the standard time of each zone was to advance one hour for the seven months beginning the last Sunday in March and ending the last Sunday in October.

The new zones themselves provoked little opposition from the general public. The Interstate Commerce Commission had drawn up the boundaries after a careful study of the railway times in use since 1883. In the few locations where the new boundaries caused problems for the railroads, special "operating exceptions" permitted them to carry time across boundaries to nearby stations.

As soon as World War I ended, however, a deluge of protests caused Congress to repeal the daylight saving provision of the original act. President Woodrow Wilson vetoed the repeal, but Congress overrode his veto. Nationwide Daylight Saving Time - in effect only in 1918 and 1919 - ended on the last Sunday in October in 1919.

At the outbreak of World War II, the United States once again adopted daylight saving time. This measure, dubbed "War Time" by Franklin D. Roosevelt, began February 9, 1942, and continued year-round until September 30, 1945.

While many states or localities observed daylight saving time between the wars and after World War II, no national time legislation took effect again until the Uniform Time Act of 1966. It provided for eight U.S. zones called Atlantic, Eastern, Central, Mountain, Pacific, Yukon, Alaska-Hawaii and Bering. The act also required all states observing daylight saving time to do so uniformly from the last Sunday in April to the last Sunday in October.

To ease the energy shortage in 1973, Congress enacted the first peacetime, year-round daylight saving time in U.S. history. But because of protests, the country observed daylight saving time from only January 6 to October 27, 1974, and from February 23 to October 26, 1975.

Daylight saving time is still controversial. Through legislation, people are still trying to bend time to their own purposes. In the summer of 1983, the U.S. House of Representatives considered and then rejected the Energy Conservation Daylight Saving Act, a bill that would have extended daylight saving time by two months. . . THE END

A BEGINNERS GUIDE TO OSCAR 10

As you can imagine, building and placing an amateur satellite into orbit is a very expensive proposition, even though a lot of contributions and "free rides" are available. AMSAT is the voluntary body that provides this most important and many other supporting functions to the Amateur Satellite Community. The key is that AMSAT is totally voluntary. They don't have a large paid staff. Mostly it is just people like me, and like I hope you will be someday, who volunteer their time and money to support the amateur satellite program. Why all this effort and what does all this gain for us? We gain new and valuable frequency space, totally unaffected by the vagaries of sunspots and the ionosphere, to make those QSOs that we find so enjoyable. In fact, when the amateur satellite is within view of your station (typically about 8 hours a day), you can talk to anybody in almost half the world. If you can remember some of the NASA photos of the Earth made from the Space Shuttle, you then will have an idea of how OSCAR-10 "sees" the Earth. It sees almost half the globe at once. Basically, if OSCAR-10 is in view of your QTH, you can talk to any of the other areas it "sees" at the same time, and that is typically half the globe!

The night I finally managed to get all the pieces to fit together and made my first satellite QSO was one of the most magnificent moments I remember in amateur radio; very similar to that night somebody answered my first CW CQ after I got my Novice license. My first OSCAR-10 QSO was truly memorable; all of a sudden I was talking to an Amateur in Brazil, one in Great Britain, and another one in the Pacific Northwest near Vancouver, all at the same time! Their voices were clear; and they all were extremely friendly people. I have read, as I am sure you have, about the old days in amateur radio when all Hams were friendly; they welcomed you to get on the bands and join their QSOs, etc. Those days don't seem to exist on the crowded HF bands in this depressed period of sunspot activity. However, on OSCAR-10 that "spirit" of Ham Radio still exists. The satellite is virtually unused most of the time, people are always welcoming you to join their QSOs and are just full of information. I found it so fascinating during one of my first QSOs, (I had a brand new rig that I really didn't know how to operate), to have a guy in Great Britain giving me a primer on which buttons to push! It was really fascinating and I certainly encourage and hope you will join me and the other amateurs that makeup AMSAT in using this "Band".

One of the prime benefits of belonging to AMSAT is their publication AMSAT Satellite Journal (This was previously called Orbit Magazine). This is a simple yet very informative publication that will allow more of our dues, the money AMSAT operates on, to go toward putting more frequency space up in orbit around the earth. I strongly encourage you to join AMSAT and be a supporter of it. Without AMSAT there would not be an amateur satellite program. So, PLEASE SUPPORT AND JOIN AMSAT. Included in the Appendices is an application for AMSAT membership. If you haven't already joined, fill it out and send it in.

In addition to AMSAT there are other ways to find out about the Amateur Satellite Program and we will be talking about those later on in this paper, but for now, let's get on with why you are reading this, and that is, how to work OSCAR-10.

CONTINUED NEXT MONTH

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RARS
AUCTION!
NOV 6

RARS meets each first Wednesday at 7:30 at First Presbyterian Church, 116 S. Salisbury Street

Calendar

Nov. 2, 3 and 16, 17 - ARRL Sweepstakes, CW/Phone

Nov. 3 - Concord, NC Hamfest

Nov. 6 - Regular RARS Meeting (Annual Auction Night)

Nov. 10 - EXCITER copy deadling

Nov. 9, 10 - European DX Contest

Nov. 20 - RARS Advisory Board Mtng. NCSU Faculty Club, 7:30 pm

Nov. 23, 24 - CQ WW DX Contest - CW

Nov. 30, 1 - Greensboro, NC Hamfest

Dec. 7, 8 - ARRL 160 Meter Contest